control area. Because these two areas require different resolutions, a higher resolution screen may be used in the standard area while a lower resolution screen may be used in the control area. Alternatively or additionally, one of the displays may be selected to reduce battery consumption especially in the control area where lower resolution is acceptable. In some cases, although two different displays are used, the images displayed thereon may be combined to form a single unified image.

B. Speaker

[0157] And-held device may also include a speaker. Speakers are components that accept electronic signals representing audio information from an amplifier and converts them into sound waves. The speakers may be used to listen to music in conjunction with a music player functionality or to listen to an incoming call in conjunction with a cell phone functionality. The speaker may be placed on the top surface or possible on the front top bezel of the hand-held device. This arrangement works particularly well when the device is used as a cell phone.

Indicator (LED)

[0158] A hand-held device may also include one or more indicators that provide user feedback or indicate events associated with the device. The events may relate to signals, conditions or status of the device. For example, the indicators provide status of battery life or alert a user when there is an incoming call. The indicators, which include light sources such as light emitting diodes (LED), are typically illuminated when an event occurs, and not illuminated when the event is stopped. Furthermore, the indicator may turn on and off (blink) or cycle with increasing or decreasing intensity, and in some cases may even change colors in order to provide more detailed information about the event that is being monitored.

[0159] The indicators may be conventional indicators that typically include a small clear plastic insert, which is located in front of the LED, and which is inserted within an opening in the housing thus causing it to exist at the surface of the housing. The LED itself may also be placed in the opening in the housing rather than using an insert. Alternatively, the indicator can be configured not to break the surface of the housing. In this configuration, the light source is disposed entirely inside the housing, and is configured to illuminate a portion of the housing thereby causing the housing to change its appearance, i.e., change its color.

D. Audio/Tactile Feedback Devices

[0160] The hand-held device may include speakers or buzzers to give audio feedback to the user. These may work similarly to the indicators described above, or they may be used to enhance the feel of actuating a GUI element such as a soft button or scroll wheel. For example, the speaker may be configured to output a "clicking" noise when a user presses on a virtual button, or rotates a virtual scroll wheel. This particular feature enhances the user experience and makes the virtual UI feel more like a physical UI.

[0161] The hand-held device may also include a haptics mechanism. Haptics is the science of applying tactile sensation and control to interaction with computer applications. Haptics essentially allows a user to feel information, i.e., signals are sent to the hand. The haptics mechanisms may be widely varied. They may include motors, vibrators, electromagnets, etc., all of which are capable of providing force feedback in the form of vibration or shaking. The haptics mechanisms may work similarly to the indicators described above (alert), or they may be used to enhance the feel of actuating a GUI element such as a soft button or scroll wheel. For example, the haptics mechanism may be configured to vibrate when a user presses on a virtual button, or rotates a virtual scroll wheel. This particular feature enhances the users experience and makes the virtual UI feel more like a physical UI. Haptics may also be used simultaneously with onscreen actions. For example, during movies or game playing, the haptics mechanism can simulate the action being displayed. For example, the haptics mechanism may provide force feedback in the form of vibration when a car explodes during a movie or game.

[0162] In cases where haptics is used to enhance the feel of actuating a GUI element, such as a soft button or scroll wheel, the haptics mechanism may be located in the region of the display and further underneath the display so as to provide force feedback directly underneath the user action. In fact, multiple haptics mechanisms may be used regionally across the display to further enhance the feel. It is generally believed that the closer the vibration is to the user action, the greater the haptics effect. In one implementation, the haptics mechanisms are spaced out in an array underneath the display. That is, they are spatially separated and placed at different locations. By way of example, they may be positioned in a 2×2, 2×4, 4×4, 4×8, 8×8 array and so on underneath the display.

[0163] Audio and/or tactile feedback may be used to alert a user that a user input has been made. For example, in response to touching a virtual button on the GUI, the haptics may provide force feedback in the form of vibration and the speaker may provide audio feedback in the form of a click. The tactile audio feedback can be used in conjunction with an input event including touch events, motion events, squeeze events. The feedback may provide information so that the user knows that they actually implemented an input (simulates the audio and tactile feel of a button or switch). In one implementation, the feedback is tied to the level of force being applied to the force sensing devices. For example, when a certain force threshold is reached, the audio feedback device may create a "click" on the press and a "clock" on the release. The force threshold used may be similar to the threshold used to determine whether a touch is a light or hard touch. The "click" and "clock" may be used to simulate a button click when a hard touch is made.

VI. Communication Devices

A. Wired

[0164] The hand-held device may also include one or more connectors for receiving and transmitting data to and from the device. By way of example, the device may include one or more audio jacks, video jacks, data ports, docking ports, etc. The hand-held device may also include one or more connectors for receiving and transmitting power to and from the hand-held device.

[0165] The hand-held device may include a headphone/microphone jack and a data port. The jack is capable of receiving a speaker and/or microphone plug so that audio may be input to and output from the device. The data port is